MEMORANDUM FOR: All NWS Regional Headquarters, Regional
Maintenance Specialists, Electronic Systems
Analysts, and Electronics Technicians
[Engineering Handbook (EHB)-13, Series II
distribution]

FROM: W/OPS1 – John McNulty

SUBJECT: Transmittal Memorandum for EHB-13 Series II,
Issuance 02-05

1.   Material Transmitted:

Engineering Handbook No. 13 Series II, Advanced Weather
Interactive Processing System (AWIPS), section 3.1, AWIPS
Software Installation Instruction Note 27, Maintenance
Release 5.1.2.3

2.   Summary:

AWIPS Software Installation Instruction Note 27, provides
instructions to download and install maintenance release
5.1.2.3.

3.   Effect on Other Instructions:

File this note in EHB-13, Series II, section 3.1.
Discard all previous software installation instructions
in section 3.1.

AWIPS SOFTWARE INSTALLATION INSTRUCTION NOTE 27
(for Electronic Systems Analysts)
Maintenance, Logistics, & Acquisition Division
W/OPS1: FJZ

SUBJECT	**:** Maintenance Release 5.1.2.3.
PURPOSE	**:** To provide installation instructions for WWA patch.
PATCH NUMBER	**:** P512_SEC_A100205
AUTHORIZATION	**:** The authority for this modification note is Request for Change RC 205
AFFECTED SITES	**:** All AWIPS Release 5.1.2.2 sites must install this maintenance release.
VERIFICATION STATEMENT	**:** The Release 5.1.2.3 installation procedures were tested and verified at LA Crosse, WI (ARX), Boston, MA (BOX), Dallas/Ft. Worth, TX (FWD), Topeka, KS (TOP), and Norman, OK (OUN).
PREINSTALLATION: REQUIREMENTS	• R5.1.2.2 must be installed. Sites must complete the modifications/localization described in attachment A of AWIPS Software Installation Instruction Note 26, Maintenance Release 5.1.2.2. • Logouts of all D2D sessions and the Text Workstations
TIME REQUIRED	**:** Approximately 25 minutes
SECURITY LEVEL	**:** root
TECHNICAL SUPPORT	**:** For questions or problems regarding these installation instructions or installing this Release, please contact the NCF at 301-713-9344**.**

GENERAL

Summary of R5.1.2.3 fixes are:

- Ingest routines create unusable products in WWA or do not create products at all (DR10528)
- WWA bugs for severe thunderstorm and tornado watches (DR 10627)

R5.1.2.3 Detailed Description

- The recommended product created within WWA from the ingest_saw and ingest_sev routines cannot be used within WWA. These products are saved with a wx_hazard = "Severe Thunderstorm" and a specifc_wx_hazard ="". These products are now represented in the WWA hazards menu after the 5.1.2.2 patch as wx_hazard = "Severe Weather" and specifc_wx_hazard = "Severe Thunderstorm", as a result sites cannot click on the recommended product and create a new Severe Thunderstorm watch from that product. In addition, the ingest_wcl and ingest_wou programs will fail because they are unable to find an entry in the characteristics database with wx_hazard = "Severe Thunderstorm" and specifc_wx_hazard = "". Root Cause: introduced by the R5.1.2.2 maintenance release.

- WWA bugs for severe thunderstorm and tornado watches (DR #10627) - With the change to the new characteristics table, the generic and specific names for Severe Thunderstorm and Tornado Watches were changed. However, in the WWA client and WWA library, these names were hard coded using old names for these watches.

PROCEDURE

NOTE: Before proceeding with the installation, ensure:

        1.   Release 5.1.2.2 is installed.

        2.   Exit all WWA sessions on HP Workstations text workstations.

        3.   **Do not** log in via lx-1 or lx-2 since these will be rebooted by the install script. Log in via an HP workstation or the AWIPS xyplex to perform the installation.

A. Pre-installation

NOTE: There is a post install step in this mod note which requires template changes and localization. Ensure that the WWA/warngen focal point is available to perform the post install step.

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1. R5.1.2.3 addendum/lessons learned document contains additonal R5.1.2.3 installation instructions. Prior to installation, download the latest lessons learned document at the following web page:

    http://www.oso3.nws.noaa.gov/awips_softwre.htm

2. For NDFD/RAP alpha software sites, no special pre and post installation instructions are required to install Maintenance Release 5.1.2.3.

B. Maintenance Release Download and ds1 Installation Procedure

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NOTE: PRC has pushed the `R5.1.2.3.tar.Z` file to the `/data/local/R5.1.2.3` directory at each AWIPS site.

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1. At an HP workstation, open a telnet window and log into ds1 as **root** by typing:

    rlogin ds1-<site> -l root

2. Change to the /data/local/R5.1.2.3 directory by typing:

    cd /data/local/R5.1.2.3

3. Scripting output for support purposes:

    script -a R5.1.2.3.out

4. Uncompress the release bundle by typing:

    zcat R5.1.2.3.tar.Z | tar xvf -

5. Run installation script by typing:

    ./installR5.1.2.3

6. Stop the output script by typing:

    ./stopscript

This completes the maintenance release download and installation procedure.

C. Post Installation Configuration Checkout

1. Check if all files were removed/copied correctly. Check for cannot write: Text file busy. If present, the file must be manually removed.

    grep busy R5.1.2.3.out

This completes the post installation configuration checkout.

D. **Workstation Localization**

1. This release requires a workstation localization. The localization **must** be done on one workstation at a time.

2. Two Warngen template files were changed. These new template files are located in `/awips/fxa/data/localization/nationalData` directory. The changed template files are listed below. These changes must be merged into custom templates, if the site is using this option. See step 6 and 7 below for information on merging site-specific changes into the new WWA templates.

    ```
    WWA_tor_wat_SLS.preWWA
    WWA_svrt_wat_SLS.preWWA
    ```

3. On each workstation (one workstation at a time), the site MUST run the following

    ```
    su - fxa
    cd /fxa/data/localization/scripts
    ./mainScript.csh -wwa
    ```

4. After the localization, verify WWA operations.

5. Two template files are uploaded to `/awips/fxa/data/localization/nationalData`.
    Sites must verify the change made in the uploaded template files are found in the associated template files located in `/data/fxa/customFiles` (if the customFiles paradigm is used. If not, skip this step). If the files do not exist, sites must merge the changes and run a localization. The file names are: `WWA_svrt_wat_sls.preWWA` and `WWA_tor_wat_sls.preWWA`. If sites did not change the file names, the same files are found in customFiles & nationalData.

NOTE: Sites are asked to not change the names of `WWA_svrt_wat_sls.preWWA` and `WWA_tor_wat_sls.preWWA`.

> **NOTE:** More detailed template file merge instructions are shown below. If the customFiles paradigm is not used, skip this step.

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6. SLS Tornado Watch

   a. Using a preferred editor, edit

      /data/fxa/customFiles/WWA_tor_wat_sls.preWWA

   b. Verify the presence of the 6 fields highlighted in red below. If they are missing, add the field "area=wwa_counties" when defining the <AREA|file=wwa_zones ...> field of the template file. **Do not forget to save the changes.** The listing below is an example of a WWA_tor_wat.sls.preWWA template file:

```
//"SLS Tornado Watch"

^{issuance header |
#include "${CURRENT_CWA}-offtIncl.txt"
ZCZC CCCNNNXXX DEF&
TTAA00 KEAX <NOW | ddhhmm | gmt>&&

BULLETIN - IMMEDIATE BROADCAST REQUESTED&
AREAL OUTLINE FOR TORNADO WATCH NUMBER $$watchNumber!&
#include "${CURRENT_CWA}-headerIncl.txt"
<NOW | header | local >&
< PURGE |ddhhmm |gmt |last_table |trail=-& |var=expireTime >
}^

!{followup/clear/cancel header |
#include "${CURRENT_CWA}-offtIncl.txt"
ZCZC $$cccValue!SPS$$xxxValue! DEF&
TTAA00 KEAX <NOW | ddhhmm | gmt>&
<AREA |file=wwa_zones |area=wwa_counties | output_field=2 |
format=ugc>
<PURGE |ddhhmm |gmt |interval=15>-&&
   SPECIAL WEATHER STATEMENT&
#include "${CURRENT_CWA}-headerIncl.txt"
<NOW | header | local >&
< PURGE |ddhhmm |gmt |last_table |trail=-& |var=expireTime >
}!
```

```
^{hazard headline |
TORNADO WATCH NUMBER $$watchNumber! IN EFFECT UNTIL
<EXPIRE>.&&
#include "sls_county_list.template"
}^

!{hazard continue |
TORNADO WATCH #$$watchNumber! REMAINS IN EFFECT FOR...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1
|format=list     |trail=~[2,counties_type]...&>
}!

!{hazard clear |
TORNADO WATCH #$$watchNumber! HAS BEEN REMOVED FROM THE FOLLOWING
  AREAS...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1
|format=list     |trail=...&>
}!

!{hazard cancel |
TORNADO WATCH #$$watchNumber! THAT WAS IN EFFECT FOR...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1
|format=list
    |trail=~[2,counties_type]...> HAS BEEN CANCELLED.
}!

!{hazard expansion |
TORNADO WATCH #$$watchNumber! HAS BEEN EXPANDED TO INCLUDE THE
        FOLLOWING AREAS...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1
|format=list         |trail=...&>
}!

!{hazard extension |
TORNADO WATCH #$$watchNumber! VALID FOR THE AREAS OF...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1
|format=list         |trail=...> HAS BEEN EXTENDED UNTIL
<EXPIRE | plain>
}!
```

7. SLS Severe Thunderstorm Watch

    a. Using a preferred editor, edit

        /data/fxa/customFiles/WWA_svrt_wat.sls.preWWA

    b. Verify the presence of the 6 fields highlighted in red below. If they are missing, add the field
        "area=wwa_counties" when defining the `<AREA|file=wwa_zones ....>` field of the
        template file. **Do not forget to save the changes.**   The listing below is an example of a
        `WWA_svrt_wat.sls.preWWA` template file:

        //"SLS Severe Thunderstorm Watch"

        ^{issuance header |
        #include "${CURRENT_CWA}-offtIncl.txt"
        ZCZC CCCNNNXXX DEF&
        TTAA00 KEAX <NOW | ddhhmm | gmt>&&

        BULLETIN - IMMEDIATE BROADCAST REQUESTED&
        AREAL OUTLINE FOR SEVERE THUNDERSTORM WATCH NUMBER $$watchNumber!&
        #include "${CURRENT_CWA}-headerIncl.txt"
        <NOW | header | local >&
        < PURGE |ddhhmm |gmt |last_table |trail=-& |var=expireTime >
        }^

        !{followup/clear/cancel header |
        #include "${CURRENT_CWA}-offtIncl.txt"
        ZCZC $$cccValue!SPS$$xxxValue! DEF&
        TTAA00 KEAX <NOW | ddhhmm | gmt>&
        <AREA |file=wwa_zones |area=wwa_counties | output_field=2 | format:ugc >
        < PURGE |ddhhmm |gmt |interval=15>-&&

        SPECIAL WEATHER STATEMENT&
        #include "${CURRENT_CWA}-headerIncl.txt"
        <NOW | header | local >&
        < PURGE |ddhhmm |gmt |last_table |trail=-& |var=expireTime >
        }!

        ^{hazard headline |
        SEVERE THUNDERSTORM WATCH NUMBER $$watchNumber! IN EFFECT UNTIL
        <EXPIRE>.&&
        #include "sls_county_list.template"
        }^

!{hazard continue |
SEVERE THUNDERSTORM WATCH #$$watchNumber! REMAINS IN EFFECT FOR...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1 |format=list
    |trail=~[2,counties_type]...&>
}!

!{hazard clear |
SEVERE THUNDERSTORM WATCH #$$watchNumber! HAS BEEN REMOVED FROM THE
FOLLOWING AREAS...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1 |format=list |trail=...&>
}!

!{hazard cancel |
SEVERE THUNDERSTORM WATCH #$$watchNumber! THAT WAS IN EFFECT FOR...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1 |format=list
    |trail=~[2,counties_type]...> HAS BEEN CANCELLED.
}!

!{hazard expansion |
SEVERE THUNDERSTORM WATCH #$$watchNumber! HAS BEEN EXPANDED TO
INCLUDE THE FOLLOWING AREAS...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1 |format=list |trail=...&>
}!

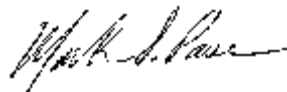!{hazard extension |
SEVERE THUNDERSTORM WATCH #$$watchNumber! VALID FOR THE AREAS OF...
<AREA |file=wwa_zones |area=wwa_counties |output_field=1 |format=list |trail=...> HAS BEEN
EXTENDED UNTIL <EXPIRE | plain>
}!

This completes the workstation localization procedure.

REPORTING MODIFICATION

Report the completed modification on a WS Form A-26, Maintenance Record, according to the instructions in Engineering Handbook 4 (EHB-4), Engineering Management Reporting System (EMRS), Part 2, and Appendix I. A sample WS Form A-26 is attached. As an additional guide, use the information in the table below.

Block #	Block Type	Information
5	Description	Install AWIPS Maintenance Release 5.1.2.3 (patch # 512_SEC_A100199) I.A.W. AWIPS Software Installation Instruction Note 27
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Installed Maintenance Release 5.1.2.3 (patch # 512_SEC_A100199) I.A.W. AWIPS Software Installation Instruction Note 27
17a	Mod. No.	S27

John McNulty
Chief, Maintenance, Logistics, and Acquisition Division

Attachment - WS Form A-26 Sample

Attachment

| WS FORM A -26 (4/94) | WS FORM A -26 (4/94)
ENGINEERING MANAGEMENT REPORTING SYSTEM
MAINTENANCE RECORD
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE | Document Number
G 49978 |

| *General Information* | **1.** Open Date
3 / 28 / 02 | Time
0900 | **2.** Initials
JMM | **3.** Response Priority (check one)
○ Immediate   ○ Low
○ Routine   ☒ Not Applicable | **4.** Close Date
3 / 28 / 02 | Time
1000 |

5. Description   **Install AWIPS maintenance release 5.1.2.3 (patch # P512_SEC_A100199) I.A.W. AWIPS Software Installation Instruction Note 27**

| *Equipment Information* | **6.** Station ID
FFC | **7.** Equipment Code
AWIPS | **8.** Serial Number
001 | **9.** TM
M | **10.** AT
M | **11.** How Mal.
999 |

| **12.** *EQUIPMENT OPERATIONAL STATUS TIMES* | **a.** Fully Operational | **b.** Logistics Delay | Partly Operational | **c.** All Other | **d.** Logistics Delay | Not Operational | **e.** All Other |

13. Parts Failure Information

Block #	a. ASN	b. NSN	c. TM	d. AT	e. How Mal.	f. Qty.	g. Maint. Hrs.
1							
2							
3							
4							
5							

14. Work Load Information

Type	Staff Hrs.
a. Routine	
b. Non-routine	
c. Travel	
d. Misc.	**1:00**
e. Overtime	

| *Miscellaneous Information* | **15.** Maintenance Comments
Installed maintenance release 5.1.2.3 (patch number P512_SEC_A100199 I.A.W. AWIPS Software Note 27. | **16.** Initials
JMM |

| **17.** *SPECIAL PURPOSE REPORTING* | **a.** Mod. No.
S27 | **b.** Mod./Act./Deact.Date
3/28/02 | **c.** | **d.** | **e.** |

| **18.** *CONFIGURATION MGMT. REPORTING* (use as directed) | ASN | Vendor Part Number (New Part) | Serial Number (Old Part) | Serial Number (New Part) |